



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/098,683	03/15/2002	Gary Karlin Michelson	101.0042-05000	7210
22882	7590	10/29/2008		
MARTIN & FERRARO, LLP 1557 LAKE O'PINES STREET, NE HARTVILLE, OH 44632			EXAMINER TYSON, MELANIE RUANO	
			ART UNIT 3773	PAPER NUMBER
			MAIL DATE 10/29/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/098,683
Filing Date: March 15, 2002
Appellant(s): MICHELSON, GARY KARLIN

Thomas H. Martin
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 01 August 2008 appealing from the Office action mailed 14 March 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 54-65, 67-78, and 104-106 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Appellant failed to disclose a liquid fusion promoting material and a solid fusion promoting material at the time the application was filed (see claims 54, 67, and 104-106). Appellant simply disclosed bone fusion promoting material, such as hydroxyapatite, tricalcium phosphate, and bone morphogenetic protein. Therefore, claims 54-65, 67-78, and 104-106 contain new matter.

Claims 54-65, 67-90, and 92-108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ray et al. (5,026,373). Ray discloses a spinal fusion implant comprising upper and lower surfaces having openings there through, a hollow interior for holding bone graft or bone growth promoting material, an insert end and a trailing end having a rear wall (fig. 1 and 5) and the implant being made from the material as claimed. Ray also discloses the hollow interior having an interior surface with a total surface area about 75% (inherently) and 25% of area perforated (cols. 9-10). Although Ray does not disclose the bone growth promoting material being bone morphogenetic protein, hydroxyapatite, hydroxyapatite tricalcium phosphate, or a combination thereof (wherein these materials are inherently bioactive and/or bioresorbable materials), the

bone growth promoting materials claimed are well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the bone growth promoting materials as claimed in Ray's implant in order to promote new bone growth, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of design choice.

Regarding the bone growth promoting material, it also would have been obvious matter of design choice to employ more than one bone growth promoting material in the Ray implant, since appellant has not disclosed that having two different growth promoting materials would solve a stated problem or is used for any particular purpose, and it appears that the implant would perform equally well with one or more promoting materials.

Regarding coating a bone implant, coating a bone implant with the bone growth promoting material is also well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the Ray implant with bone growth promoting material in order to provide a better surface for new bone to grow into the implant and forming bone fusion.

(10) Response to Argument

Regarding the new matter rejection, the appellant argues that the solid states of hydroxyapatite and hydroxyapatite tricalcium phosphate, and the liquid state of BMP are inherent properties of these materials when used to promote bone fusion. Therefore, liquid fusion promoting materials and solid fusion promoting materials were disclosed at

the time the application was filed. However, it is the examiner's position that the terms "liquid" and "solid" cover other materials in addition to those disclosed by the appellant. Although the materials disclosed by the appellant may inherently contain these properties, the appellant did not disclose all liquid and solid fusion promoting materials. Appellant simply disclosed hydroxyapatite, hydroxyapatite tricalcium phosphate, BMP, or a combination thereof.

Regarding the obviousness rejection, the appellant argues that Ray discloses the use of solid and bioresorbable materials, but fails to disclose, teach, or suggest the combination of liquid and solid fusion promoting materials. The appellant further argues that the examiner has not pointed to any teaching or suggestion in the prior art for the modification of Ray. However, it is the examiner's position that the bone growth promoting materials claimed are well known in the art (for example, prior art Rueger et al. 5,344,654 teach coating a prosthesis or implant with materials such as hydroxyapatite and hydroxyapatite tricalcium phosphate for enhancing bone growth and fixation - for example, see column 11, lines 2-10; prior art Pillar et al. 5,344,457 teach coating implants with materials such as BMP and hydroxyapatite to enhance bone growth - for example, see column 8, lines 10-24). It is well within the general knowledge of one having ordinary skill in the art to combine well known bone growth promoting materials in order to effectively promote bone growth and enhance fixation. It would have been an obvious matter of design choice to employ more than one bone growth promoting material in the Ray implant, such as the combination of a liquid and solid fusion promoting material as claimed, since appellant has not disclosed that having two

different growth promoting materials as claimed would solve a stated problem or is used for any particular purpose, and it appears that the implant would perform equally well with one solid fusion promoting material as disclosed by Ray. Regarding the appellant's argument that the examiner overestimates the level of ordinary skill at the time the application was filed, it is noted that both the exemplary patents, Rueger and Pillar, were filed prior to the priority date of the present application.

The appellant further argues that even if the modification were proper, Ray fails to disclose or suggest providing the materials in the hollow interior of the implant. However, it is the examiner's position that dipping is a well known method of coating implants, in which case both the exterior and interior of the implant would inherently contain the materials.

Regarding claim 79, the appellant argues that Ray fails to disclose the trailing end is adapted to be connectable to another interbody spinal implant. It is the examiner's position that the trailing has surfaces that may be connected another interbody spinal implant if one desired to do so.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Melanie Tyson /M. T./

Examiner, Art Unit 3773

Conferees:

/(Jackie) Tan-Uyen T. Ho/

Supervisory Patent Examiner, Art Unit 3773

Thomas Barrett

/Thomas Barrett

TQAS TC3700